



**UNITED STATES DEPARTMENT OF COMMERCE  
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/538,785	03/30/00	CEOLA	A39.2-8766

PM82/0702  
VIDAS ARRETT & STEINKRAUS PA  
6109 BLUE CIRCLE DRIVE  
SUITE 2000  
MINNETONKA MN 55343-9131

EXAMINER
LOFDAHL, J

ART UNIT	PAPER NUMBER
3644	

DATE MAILED: 07/02/01

**Please find below and/or attached an Office communication concerning this application or proceeding.**

**Commissioner of Patents and Trademarks**

# Office Action Summary

Application No.

09/538,785

Applicant(s)

CEOLA, KENNETH D.

Examiner

Jordan M Lofdahl

Art Unit

3644

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on 30 March 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other:

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claims 3 and 6, it is unclear to the examiner how the claiming of at least two events includes a listing of three occurring events. A list of only two occurring events should be presented in each claim.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claim 1, 2, 4, 5 and 10-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kurschner et al. (5497704).

As to claim 1, Kurschner discloses a device (fig. 1-8) comprising a magnetic sensing apparatus for determining muzzle exit and spin rate (col. 4, lines 4-7) and capable of arming the fuze upon the two occurrences.

As to claim 2, Kurschner discloses a device including a timer (44) and an apparatus programmed to arm the fuze only if at least two event occur in a predetermined order in a predetermined time window (col. 7, lines 48-50).

As to claims 4, Kurschner discloses a device where at least two events are muzzle exit (col. 4, lines 4-7) and predetermined number of spins (col. 7, lines 50-51).

As to claims 5, Kurschner discloses a device where at least two events are predetermined spin rates and predetermined number of spins (col. 7, lines 50-51 and claim 9).

As to claims 10-14, the method steps of the instant claim are readily apparent during the operation of the device of Kurschner et al.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3644

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kurschner et al. (5497704).

As to claim 7, the limitations of claim 2 are disclosed as described above. Kurschner discloses a device including a sensor (20) capable of determining set back where the fuze is only armed if setback occurs and the at least two events occur in a predetermined order.

As to claim 8, the limitations of claim 7 are disclosed as described above. Kurschner discloses a device comprising a fuze which is armed only if muzzle exit occurs within a predetermined time window. But not disclosed is the time window predetermined from setback. It would have been obvious to one having ordinary skill in the art at the time the invention was made to comprise the predetermined time window from setback since it has been held that discovering the optimum or workable ranges involves only routine skill in the art.

As to claim 9, the limitations to claim 1 are disclosed as described above. Not disclosed is the fuze being armed if the spin rate is between a predetermined minimum and maximum spin rate within a predetermined time window. It would have been obvious to

Art Unit: 3644

one having ordinary skill in the art at the time the invention was made to arm the fuze between a predetermined minimum and maximum spin rate within a predetermined time window since it has been held that discovering the optimum or workable ranges involves only routine skill in the art.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Biggs et al. (4633779), Ettel et al. (4862785), Kurschner et al. (5265539), Oehler (5394853) and Crist et al. (6196130 B1) all disclose related fuze devices.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jordan M Lofdahl whose telephone number is 703.605.1217. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles T Jordan can be reached on 703.306.4159. The fax phone numbers for the organization where this application or proceeding is assigned are 703.305.7687 for regular communications and 703.305.7687 for After Final communications.

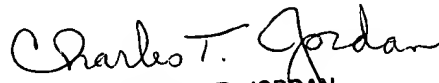
Art Unit: 3644

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is

703.306.4180.



jml  
June 27, 2001



CHARLES T. JORDAN  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600